

Appl. No. 10/799,243
Amdt. Dated November 13, 2006
Reply to Office Action of August 11, 2006

Attorney Docket No. 81864.0033
Customer No.: 26021

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for manufacturing an R-T-B system rare earth permanent magnet comprising a sintered body ~~comprising~~ having a composition consisting essentially of 25% to 35% by weight of R (wherein R represents one or more rare earth elements (providing that the rare earth elements include Y), 0.5% to 4.5% by weight of B, 0.02% to 0.6% by weight of Al and/or Cu, 0.03% to 0.25% by weight of Zr, 4% or less by weight (excluding O) of Co, and the balance substantially being Fe,

wherein said sintered body comprises a main phase consisting of an $R_2T_{14}B$ phase ~~(wherein R represents one or more rare earth elements (providing that the rare earth elements include Y), and T represents one or more transition metal elements essentially containing Fe, or Fe and Co)~~ Co, and a grain boundary phase containing a higher amount of R than said main phase,

wherein a product that is rich in Zr exists in said $R_2T_{14}B$ phase,

said manufacturing method comprising the steps of:

preparing an R-T-B alloy containing as a main component said $R_2T_{14}B$ phase and also containing the whole amount of Zr, and an R-T alloy containing R and T as main components, wherein the amount of R is higher than that of said R-T-B alloy;

obtaining a mixture of a powder of said R-T-B alloy ~~powder~~ and a powder of said R-T alloy ~~powder~~;

preparing a compacted body with a certain form from said mixture; and
sintering said compacted body,

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wherein, in said sintering step, said product is generated in said $R_2T_{14}B$ phase; and

wherein said R-T-B alloy is prepared by the strip casting method under the condition that the peripheral velocity of a chill roll is 1.0 to 1.8 m/s.

2. (Original) A method for manufacturing an R-T-B system rare earth permanent magnet according to claim 1, wherein said product is platy or acicular.

3. (Original) A method for manufacturing an R-T-B system rare earth permanent magnet according to claim 1, wherein said R-T-B alloy that does not contain said product is prepared, and then the steps up to said sintering step of sintering said compacted body are carried out, while avoiding the generation of said product.

4. (Cancelled)

5. (Cancelled)

6. (Original) A method for manufacturing an R-T-B system rare earth permanent magnet according to claim 1, wherein the amount of oxygen contained in said sintered body is 2,000 ppm or less.